

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claim 1 (previously presented): A method for the measurement of a cellular process in one or more different populations of cells, the method comprising:

- i) providing one or more different populations of adherent cells growing on support particles, said support particles including a scintillant substance and being adapted for cell growth;
- ii) introducing samples of each of said populations of adherent cells, growing on said support particles, contained in a fluid medium into separate reaction vessels for each population sampled;
- iii) introducing into each reaction vessel a reagent labelled with a radioisotope under conditions so as to cause a portion of said radiolabelled reagent to become associated with said cells; and
- iv) detecting light emission from said support particles, including said scintillant substance caused by radioactive decay of the radioisotope as a means of measuring said cellular process.

Claim 2 (withdrawn): A method for the measurement of the effect of a test compound on a cellular process in one or more different populations of cells, the method comprising:

- i) providing one or more different populations of cells adhering to support particles said support particles including a scintillant substance and being adapted for cell growth;
- ii) introducing samples of each of said populations of cells, adhering to said support particles, contained in a fluid medium into separate reaction vessels for each population sampled;
- iii) introducing into each reaction vessel a sample of a test compound whose effect on said cellular process is to be measured;
- iv) introducing into each reaction vessel a reagent labelled with a radioisotope under conditions so as to cause a portion of said radiolabelled reagent to become associated with said cells; and
- v) detecting light emission from the scintillant particles caused by radioactive decay of the radioisotope as a means of measuring the effect of the test compound on said cellular process.

Claim 3 (withdrawn): The method of claim 2 wherein the measurement of step v) is compared with a measurement of a cellular process in one or more different populations of cells in the absence of the test compound.

Claim 4 (withdrawn): The method of claim 2 wherein each of the cell samples is treated with different concentrations of said test compound in the presence of a fixed quantity of said radiolabelled reagent.

Claim 5 (previously presented): The method of claim 1 wherein different concentrations of said radiolabelled reagent are incubated in separate reaction vessels in a fluid medium, wherein each fluid medium contains said one or more different populations of cells.

Claim 6 (original): The method of claim 1 wherein said vessel is a well of a multiwell plate.

Claim 7 (original): The method of claim 1 wherein said detection step is performed in the presence of radiolabelled reagent both associated with said cells and in the fluid medium.

Claim 8 (original): The method of claim 1 wherein said detection step is performed by scintillation counting.

Claim 9 (original): The method of claim 1 wherein said detection step is performed by imaging.

Claim 10 (original): The method of claim 1 wherein said cellular process is selected from biosynthesis, uptake, transport, receptor binding, metabolism, fusion, biochemical response, growth and death.

Claim 11 (original): The method of claim 10 wherein said receptor binding comprises a specific binding interaction between the radiolabelled reagent and a specific binding partner located in or on the surface of the cells.

Claim 12 (original): The method of claim 1 wherein the radioisotope is selected from  $^{14}\text{C}$ ,  $^3\text{H}$ ,  $^{35}\text{S}$ ,  $^{33}\text{P}$ ,  $^{125}\text{I}$ ,  $^{32}\text{P}$ ,  $^{45}\text{Ca}$ ,  $^{55}\text{Fe}$ ,  $^{51}\text{Cr}$ ,  $^{86}\text{Rb}$  and  $^{109}\text{Cd}$ .

Claim 13 (currently amended): The method of claim 1 wherein said measurement of said cellular process is performed in real time using a non-invasive technique.

Claim 14 (withdrawn): A solid support for cell based assays said support comprising particles including a matrix, and having a scintillant substance which has been coated onto, or integrated into, the matrix of the particles, and being adapted for cell growth.

Claim 15 (withdrawn): The solid support of claim 14 wherein said particles comprise polymeric beads.

Claim 16 (withdrawn): The solid support of claim 15 wherein said beads have a porous or macro-porous structure.

Claim 17 (withdrawn): The solid support of claim 14 wherein said particles comprise a cross-linked dextran.

Claim 18 (withdrawn): The solid support of claim 14 wherein said particles are in the form of a bead having a diameter in the range from 1 $\mu$ m to 500 $\mu$ m, and more preferably in the range from 50 $\mu$ m to 250 $\mu$ m.

Claim 19 (withdrawn): The solid support of claim 14 wherein said scintillant substance is an inorganic scintillant preferably yttrium silicate (YSi) or yttrium oxide (YOx).